

Monterey County EMS System Policy



Policy Number: 4503
Effective Date: 7/1/2025
Review Date: 6/30/2028

CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)

I. PURPOSE

To establish guidance on the appropriate use of CPAP when treating patients experiencing moderate to severe respiratory distress. Patients experiencing respiratory distress from pulmonary edema, COPD, asthma, near drowning, pneumonia, or any other conditions where respiratory gas exchange is inadequate and may lead to respiratory failure.

II. POLICY

- A. All Paramedic Service Provider and EMT-Expanded Scope personnel shall have documented training in the use of the CPAP machine currently in use by the EMS Service Provider. The training shall include both instructions on the practical applications of the device and documentation that the provider understands this policy. In addition, yearly refresher training shall be given to all applicable providers.
- B. CPAP should be used in accordance with the conditions outlined below.

III. INDICATIONS

Patient's age 9 or older in severe respiratory distress.

IV. CONTRAINDICATIONS

ABSOLUTE Contraindications (DO NOT USE)

- A. Age < 9 years
- B. Respiratory or Cardiac Arrest
- C. Agonal Respirations
- D. Severely depressed level of consciousness
- E. Systolic blood pressure < 90 mmHg
- F. Signs and symptoms of pneumothorax
- G. Major facial, head, neck, or chest trauma
- H. Inability to maintain airway patency
- I. Facial anomalies that prevent adequate mask seal
- J. Possible transmissible airborne infectious disease (COVID, TB, etc.)
- K. Vomiting or active GI bleeding
- L. Stomach surgery (including gastric sleeve) within the past month

RELATIVE Contraindications (USE WITH CAUTION)

- A. History of pulmonary fibrosis
- B. History of pneumothorax
- C. Claustrophobia or unable to tolerate mask (after coaching attempt and a two-minute trial)

V. PROCEDURE

- A. Prior to applying the CPAP device, explain the treatment and inform the patient of what to anticipate. The patient should be either sitting (preferred) or standing upright when utilizing the CPAP. Approach the patient slowly with the mask and hold it a few centimeters away from their face prior to application and securing the head straps.
- B. Follow the manufacturer's directions for set up and placement of the CPAP device. Make sure that oxygen is flowing prior to placing the mask over the patient's face and securing the head straps. If air is leaking from the face seal, assess the cause and readjust either the mask positioning or tension on the head straps. Consider changing the mask size if necessary.
- C. Start CPAP at 7.5 cm H₂O. The provider may increase the pressure up to 10 cm H₂O based on the patient's presentation. Base hospital contact shall be obtained to adjust the pressure > 10 cm H₂O.
- D. In-line nebulization may be used with the CPAP circuit to administer a bronchodilator during CPAP use.
- E. Monitor and document vital signs (BP, heart rate, respiratory rate, SPO₂, cardiac rhythm, and ET/CO₂) and patient response to treatment every 5 minutes.
- F. Observe for signs of deterioration or failure of patient response to CPAP.

END OF POLICY